

IN THE CLAIMS:

~~Please delete Claim 1 without prejudice or disclaimer.~~

Please amend Claims 2, 3, 4, 10, 11, and 23 as follows:

Claim 2 (Twice amended). A purified or isolated nucleic acid encoding a secreted soluble calcium channel subunit polypeptide that binds gabapentin said nucleic acid comprising a polynucleotide having at least 90% identity with the sequence encoding:

- from amino-acid 1 to between amino-acids 1027 and 1062 of SEQ ID N°20, or
- from amino-acid 1 to between amino-acids 984 and 1019 of SEQ ID N°22.

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Claim 3 (Twice amended). A purified or isolated nucleic acid encoding a secreted soluble calcium channel subunit polypeptide that binds gabapentin wherein the sequence of said nucleic acid is at least 90% identical with the sequence encoding:

- from amino-acid 1 to between amino-acids 1047 and 1062 of SEQ ID N°20, or
- from amino-acid 1 to between amino-acids 1004 and 1019 of SEQ ID N°22.

Claim 4 (Twice amended). A purified or isolated nucleotide sequence encoding a secreted soluble calcium channel subunit polypeptide wherein said sequence is the sequence of SEQ ID N°1, SEQ ID N°2, SEQ ID N°3, SEQ ID N°7, SEQ ID N°8, SEQ ID N°9, SEQ ID N°13, SEQ ID N°14, or SEQ ID N°15.

Claim 10 (Amended). A recombinant vector comprising a nucleic acid according to claim 2.

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Claim 11 (Amended). A recombinant host cell comprising a nucleic acid according to claim 2.

Claim 12 (Amended). A method for producing a secreted soluble calcium channel subunit polypeptide, said method comprises the steps of:

- (a) inserting the nucleic acid according to claim 2 in an appropriate vector;

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(b) culturing, in an appropriate culture medium, a host cell previously transformed or transfected with the recombinant vector of step (a);

(c) harvesting the culture medium thus obtained or lyse the host cell, for example by sonication or osmotic shock;

(d) separating or purifying, from said culture medium, or from the pellet of the resultant host cell lysate, the thus produced calcium channel subunit polypeptide of interest.

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cont

Claim 23 (Amended). A purified or isolated nucleic acid encoding a secreted soluble calcium channel subunit polypeptide that binds gabapentin, wherein the nucleotide sequence of said nucleic acid is at least 90% identical with the nucleotide sequence of SEQ ID N°1, SEQ ID N°2, SEQ ID N°3, SEQ ID N°7, SEQ ID N°8, SEQ ID N°9, SEQ ID N°13, SEQ ID N°14, or SEQ ID N°15.

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Please add new Claims 24 and 25 as follows:

Claim 24 (New). A purified or isolated nucleic acid encoding a secreted soluble calcium channel subunit polypeptide that binds gabapentin, said nucleic acid comprising a nucleotide sequence having at least 90% identity with the sequence encoding

- a polypeptide from amino-acid 1 to between amino-acids 1027 and 1062 of SEQ ID N°20 wherein said polypeptide that has one or several equivalent amino acid substitutions[for $\alpha_2\delta$ -2], or

- a polypeptide from amino-acid 1 to between amino-acids 984 and 1019 of SEQ ID N°22 wherein said polypeptide has one or several equivalent amino acid substitutions.

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Claim 25 (New). The nucleic acid of claim 2 further comprising a nucleotide sequence encoding a tag.